

FABRICATION OF A HIGH-STRENGTH STEEL ARTICLE
WITH INCLUSION CONTROL DURING MELTING

ABSTRACT OF THE DISCLOSURE

5 A steel article is fabricated by providing an iron-base alloy having less than
about 0.5 weight percent aluminum, melting the alloy to form a melt, adding
calcium to the melt, thereafter adding aluminum to the melt to increase the
aluminum content of the melt to more than about 0.5 weight percent aluminum,
and casting the melt to form a casting. Other calcium additions may be made
10 simultaneously with the adding of aluminum, and after the adding of aluminum
but before casting the melt. The calcium additions deoxidize the melt to minimize
the formation of clustered aluminum-oxygen-based inclusions.